I claim:

1. A water-based drilling fluid having effective rheology comprising low shear rate viscosity and effective fluid loss control properties comprising:

a quantity of water soluble polymer; and,

an amount of surfactant adapted to associate with said water soluble polymer and to provide said effective rheology and effective fluid loss control properties.

2. The water-based drilling fluid of claim 1 wherein said low shear rate viscosity is about 70,000 cP or more upon exposure to 0.3 rpm.

3. The water-based drilling fluid of claim 1 wherein said low shear rate viscosity is about 100,000 cP or more upon exposure to 0.3 rpm.

4. The water-based drilling fluid of claim 1 further comprising a concentration of non-toxic water emulsifiable material as an internal phase, said quantity being sufficient to provide effective lubrication properties to said drilling fluid.

5. The water-based drilling fluid of claim 2 further comprising a concentration of non-toxic water emulsifiable material as an internal phase, said quantity being sufficient to provide effective lubrication properties to said drilling fluid.

6. The water-based drilling fluid of claim 3 further comprising a concentration of non-toxic water emulsifiable material as an internal phase, said quantity being sufficient to provide effective lubrication properties to said drilling fluid.

7. The water-based drilling fluid of claim 1 wherein said surfactant is selected from the group consisting of alkyl sulfates, alkyl ether sulfates, alkyl ether sulfates, alkyl sulfonates, ethoxylated esters, ethoxylated glycoside esters, alcohol ethers, and phosphated esters comprising about 8 to about 18 carbon atoms, preferably about 8 to about 12 carbon atoms, alkali metal salts thereof, and combinations thereof.

8. The water-based drilling fluid of claim 1 wherein said surfactant is selected from the group consisting of alkyl sulfates and alkyl ether sulfates.

9. The water-based drilling fluid of claim 1 wherein said surfactant comprises an alkyl ether sulfate.

10. The water-based drilling fluid of claim 1 wherein said surfactant is sodium tridecyl ether sulfate.

11. The water-based drilling fluid of claim 3 wherein said surfactant is selected from the group consisting of alkyl sulfates, alkyl ether sulfates, alkyl sulfonates, ethoxylated esters, ethoxylated glycoside esters, alcohol ethers, and phosphated esters comprising about 8 to about 18 carbon atoms, preferably about 8 to about 12 carbon atoms, alkali metal salts thereof, and combinations thereof.

12. The water-based drilling fluid of claim 3 wherein said surfactant is selected from the group consisting of alkyl sulfates and alkyl ether sulfates.

13. The water-based drilling fluid of claim 3 wherein said surfactant comprises an alkyl ether sulfate.

14. The water-based drilling fluid of claim 3 wherein said surfactant is sodium tridecyl ether sulfate.

15. The water-based drilling fluid of claim 4 wherein said surfactant is selected from the group consisting of alkyl sulfates, alkyl ether sulfates, alkyl

sulfonates, ethoxylated esters, ethoxylated glycoside esters, alcohol ethers, and phosphated esters comprising about 8 to about 18 carbon atoms, preferably about 8 to about 12 carbon atoms, alkali metal salts thereof, and combinations thereof.

16. The water-based drilling fluid of claim 4 wherein said surfactant is selected from the group consisting of alkyl sulfates and alkyl ether sulfates.

17. The water-based drilling fluid of claim 4 wherein said surfactant comprises an alkyl ether sulfate.

18. The water-based drilling fluid of claim 4 wherein said surfactant is sodium tridecyl ether sulfate.

19. The water-based drilling fluid of claim 6 wherein said surfactant is selected from the group consisting of alkyl sulfates, alkyl ether sulfates, alkyl sulfonates, ethoxylated esters, ethoxylated glycoside esters, alcohol ethers, and phosphated esters comprising about 8 to about 18 carbon atoms, preferably about 8 to about 12 carbon atoms, alkali metal salts thereof, and combinations thereof.

20. The water-based drilling fluid of claim 6 wherein said surfactant is selected from the group consisting of alkyl sulfates and alkyl ether sulfates

21. The water-based drilling fluid of claim 6 wherein said surfactant comprises an alkyl ether sulfate.

22. The water-based drilling fluid of claim 6 wherein said surfactant is sodium tridecyl ether sulfate.

23. The water-based drilling fluid of claim 1 wherein said fluid consists essentially of additives other than a solid bridging agent.

24. The water-based drilling fluid of claim 2 wherein said fluid consists essentially of additives other than a solid bridging agent.

25. The water-based drilling fluid of claim 3 wherein said fluid consists essentially of additives other than a solid bridging agent.

26. The water-based drilling fluid of claim 6 wherein said fluid consists essentially of additives other than a solid bridging agent.

27. The water-based drilling fluid of claim 9 wherein said fluid consists essentially of additives other than a solid bridging agent.

28. The water-based drilling fluid of claim 19 wherein said fluid consists essentially of additives other than a solid bridging agent.

29. The water-based drilling fluid of claim 20 wherein said fluid consists essentially of additives other than a solid bridging agent.

30. The water-based drilling fluid of claim 21 wherein said fluid consists essentially of additives other than a solid bridging agent.

31. The water-based drilling fluid of claim 23 wherein said effective fluid loss control properties is a fluid loss of about 5 ml./30 min. or less using the standard dynamic filtration fluid loss test.

32. The water-based drilling fluid of claim 24 wherein said effective fluid loss control properties is a fluid loss of about 5 ml./30 min. or less using the standard dynamic filtration fluid loss test.

33. The water-based drilling fluid of claim 25 wherein said effective fluid loss control properties is a fluid loss of about 5 ml./30 min. or less using the standard dynamic filtration fluid loss test.

34. The water-based drilling fluid of claim 26 wherein said effective fluid loss control properties is a fluid loss of about 5 ml./30 min. or less using the standard dynamic filtration fluid loss test.

35. The water-based drilling fluid of claim 27 wherein said effective fluid loss control properties is a fluid loss of about 5 ml./30 min. or less using the standard dynamic filtration fluid loss test.

36. The water-based drilling fluid of claim 28 wherein said effective fluid loss control properties is a fluid loss of about 5 ml./30 min. or less using the standard dynamic filtration fluid loss test.

37. The water-based drilling fluid of claim 29 wherein said effective fluid loss control properties is a fluid loss of about 5 ml./30 min. or less using the standard dynamic filtration fluid loss test.

38. The water-based drilling fluid of claim 30 wherein said effective fluid loss control properties is a fluid loss of about 5 ml./30 min. or less using the standard dynamic filtration fluid loss test.

39. The water-based drilling fluid of claim 30 wherein said effective fluid loss control properties is a fluid loss of about 1 ml./30 min. or less using the standard dynamic filtration fluid loss test.

40. A water-based drilling fluid having effective rheology comprising low shear rate viscosity and effective fluid loss control properties comprising:

a quantity of water soluble polymer;

an amount of surfactant adapted to associate with said water soluble polymer and to provide said effective rheology and effective fluid loss control properties; and

a concentration of non-toxic water emulsifiable material as an internal phase, said surfactant being effective to emulsify said water emulsifiable

material and to produce emulsion droplets having an average diameter of about 30 microns or less.

41. The water-based drilling fluid of claim 40 wherein said surfactant is selected from the group consisting of alkyl sulfates, alkyl ether sulfates, alkyl sulfonates, ethoxylated esters, ethoxylated glycoside esters, alcohol ethers, and phosphated esters comprising about 8 to about 18 carbon atoms, preferably about 8 to about 12 carbon atoms, alkali metal salts thereof, and combinations thereof.

42. The water-based drilling fluid of claim 40 wherein said surfactant is selected from the group consisting of alkyl sulfates and alkyl ether sulfates.

43. The water-based drilling fluid of claim 40 wherein said surfactant comprises an alkyl ether sulfate.

44. The water-based drilling fluid of claim 40 wherein said surfactant is sodium tridecyl ether sulfate.

45. The water-based drilling fluid of claim 40 wherein said surfactant is effective to emulsify said water emulsifiable material and to produce emulsion droplets having an average diameter of about 20 microns or less.

46. The water-based drilling fluid of claim 40 wherein said surfactant is effective to emulsify said water emulsifiable material and to produce emulsion droplets having an average diameter of about 15 microns or less.

47. The water-based drilling fluid of claim 40 wherein said surfactant is effective to emulsify said water emulsifiable material and to produce emulsion droplets having an average diameter of about 5 microns or less.

48. The water-based drilling fluid of claim 40 wherein said low shear rate viscosity is about 70,000 cP or more upon exposure to 0.3 rpm.

49. The water-based drilling fluid of claim 40 wherein said low shear rate viscosity is about 100,000 cP or more upon exposure to 0.3 rpm.

50. The water-based drilling fluid of claim 47 wherein said low shear rate viscosity is about 70,000 cP or more upon exposure to 0.3 rpm.

51. The water-based drilling fluid of claim 40 wherein said concentration is from about 2 to about 20 vol.%.

52. The water-based drilling fluid of claim 40 wherein said concentration is about 5 vol.% .

53. The water-based drilling fluid of claim 47 wherein said concentration is from about 2 to about 20 vol.%.

54. The water-based drilling fluid of claim 47 wherein said concentration is about 5 vol.% .

55. The water-based drilling fluid of claim 40 wherein said non-toxic water emulsifiable material is a water insoluble material selected from the group consisting of olefins, paraffins, water insoluble glycols, water insoluble esters, water insoluble Fischer-Tropsch reaction products, and combinations thereof.

56. The water-based drilling fluid of claim 40 wherein said water emulsifiable material is a water insoluble material selected from the group consisting of olefins, paraffins, water insoluble glycols, and combinations thereof.

57. The water-based drilling fluid of claim 47 wherein said water emulsifiable material is a water insoluble material selected from the group consisting of olefins, paraffins, water insoluble glycols, and combinations thereof.

58. The water-based drilling fluid of claim 40 wherein said fluid consists essentially of additives other a solid bridging agent.

59. The water-based drilling fluid of claim 48 wherein said fluid consists essentially of additives other than a solid bridging agent.

60. The water-based drilling fluid of claim 49 wherein said fluid consists essentially of additives other than a solid bridging agent.

61. The water-based drilling fluid of claim 50 wherein said fluid consists essentially of additives other than a solid bridging agent.

62. The water-based drilling fluid of claim 40 wherein said effective fluid loss control properties is a fluid loss of about 5 ml./30 min. or less using the standard dynamic filtration fluid loss test.

63. The water-based drilling fluid of claim 58 wherein said effective fluid loss control properties is a fluid loss of about 5 ml./30 min. or less using the standard dynamic filtration fluid loss test.

64. The water-based drilling fluid of claim 59 wherein said effective fluid loss control properties is a fluid loss of about 5 ml./30 min. or less using the standard dynamic filtration fluid loss test.

65. The water-based drilling fluid of claim 60 wherein said effective fluid loss control properties is a fluid loss of about 5 ml./30 min. or less using the standard dynamic filtration fluid loss test.

66. The water-based drilling fluid of claim 61 wherein said effective fluid loss control properties is a fluid loss of about 1 ml./30 min. or less using the standard dynamic filtration fluid loss test.

67. The water-based drilling fluid of claim 40 wherein said water soluble polymer is selected from the group consisting of water soluble starches and modified versions thereof, water-soluble polysaccharides and modified versions thereof, and

water-soluble celluloses and modified versions thereof, and water soluble polyacrylamides and copolymers thereof, and combinations thereof.

68. The water-based drilling fluid of claim 40 wherein said quantity is at least about 2 lb./bbl.

69. The water-based drilling fluid of claim 40 wherein said quantity is about 7.5 lb.bbl.

70. The water-based drilling fluid of claim 48 wherein said water soluble polymer is selected from the group consisting of water soluble starches and modified versions thereof, water-soluble polysaccharides and modified versions thereof, and water-soluble celluloses and modified versions thereof, and water soluble polyacrylamides and copolymers thereof, and combinations thereof.

71. The water-based drilling fluid of claim 48 wherein said quantity is at least about 2 lb./bbl.

72. The water-based drilling fluid of claim 48 wherein said quantity is about 7.5 lb.bbl.

73. The water-based drilling fluid of claim 59 wherein said water soluble polymer is selected from the group consisting of water soluble starches and modified versions thereof, water-soluble polysaccharides and modified versions thereof, and water-soluble celluloses and modified versions thereof, and water soluble polyacrylamides and copolymers thereof, and combinations thereof.

74. The water-based drilling fluid of claim 59 wherein said quantity is at least about 2 lb./bbl.

75. The water-based drilling fluid of claim 59 wherein said quantity is about 7.5 lb.bbl.

76. The water based drilling fluid of claim 40 wherein said amount is from about 0.2 to about 4 lb./bbl.

77. The water based drilling fluid of claim 40 wherein said amount is about 2 lb./bbl.

78. The water-based drilling fluid of claim 40 wherein said quantity is at least about 2 lb./bbl.

79. The water-based drilling fluid of claim 40 wherein said quantity is about 7.5 lb.bbl.

80. The water based drilling fluid of claim 58 wherein said amount is from about 0.2 to about 4 lb./bbl.

81. The water based drilling fluid of claim 58 wherein said amount is about 2 lb./bbl.

82. A water-based drilling fluid having effective rheology with low shear rate viscosity and effective fluid loss control properties comprising:

at least about 2 lb./bbl. water soluble polymer; and,

at least about 0.2 lb./bbl. of a surfactant adapted to associate with said water soluble polymer and to provide said effective rheology and fluid loss control properties.

83. The water-based drilling fluid of claim 82 wherein said surfactant is selected from the group consisting of alkyl sulfates, alkyl ether sulfates, alkyl sulfonates, ethoxylated esters, ethoxylated glycoside esters, alcohol ethers, and phosphated esters comprising about 8 to about 18 carbon atoms, preferably about 8 to about 12 carbon atoms, alkali metal salts thereof, and combinations thereof.

84. The water-based drilling fluid of claim 82 wherein said surfactant is selected from the group consisting of alkyl sulfates and alkyl ether sulfates.

85. The water-based drilling fluid of claim 82 wherein said surfactant comprises an alkyl ether sulfate.

86. The water-based drilling fluid of claim 82 wherein said surfactant is sodium tridecyl ether sulfate.

87. The water-based drilling fluid of claim 82 wherein said low shear rate viscosity is about 70,000 cP or more upon exposure to 0.3 rpm.

88. The water-based drilling fluid of claim 82 wherein said low shear rate viscosity is about 100,000 cP or more upon exposure to 0.3 rpm.

89. The water-based drilling fluid of claim 83 wherein said low shear rate viscosity is about 70,000 cP or more upon exposure to 0.3 rpm.

90. The water-based drilling fluid of claim 84 wherein said low shear rate viscosity is about 70,000 cP or more upon exposure to 0.3 rpm.

91. The water-based drilling fluid of claim 85 wherein said low shear rate viscosity is about 70,000 cP or more upon exposure to 0.3 rpm.

92. The water-based drilling fluid of claim 86 wherein said low shear rate viscosity is about 70,000 cP or more upon exposure to 0.3 rpm.

93. The water-based drilling fluid of claim 82 further comprising a concentration of non-toxic water emulsifiable material as an internal phase.

94. The water-based drilling fluid of claim 83 further comprising a concentration of non-toxic water emulsifiable material as an internal phase.

95. The water-based drilling fluid of claim 84 further comprising a concentration of non-toxic water emulsifiable material as an internal phase.

96. The water-based drilling fluid of claim 85 further comprising a concentration of non-toxic water emulsifiable material as an internal phase.

97. The water-based drilling fluid of claim 88 further comprising a concentration of non-toxic water emulsifiable material as an internal phase.

98. The water-based drilling fluid of claim 89 further comprising a concentration of non-toxic water emulsifiable material as an internal phase.

99. The water-based drilling fluid of claim 90 further comprising a concentration of non-toxic water emulsifiable material as an internal phase.

100. The water-based drilling fluid of claim 91 further comprising a concentration of non-toxic water emulsifiable material as an internal phase.

101. The water-based drilling fluid of claim 93 wherein said concentration is from about 2 to about 20 vol.%.

102. The water-based drilling fluid of claim 93 wherein said concentration is about 5 vol.% .

103. The water-based drilling fluid of claim 97 wherein said concentration is from about 2 to about 20 vol.%.

104. The water-based drilling fluid of claim 97 wherein said concentration is about 5 vol.% .

105. The water-based drilling fluid of claim 100 wherein said concentration is from about 2 to about 20 vol.%.

106. The water-based drilling fluid of claim 100 wherein said concentration is about 5 vol.% .

107. The water-based drilling fluid of claim 88 wherein said fluid consists essentially of additives other a solid bridging agent.

108. The water-based drilling fluid of claim 87 wherein said fluid consists essentially of additives other than a solid bridging agent.

109. The water-based drilling fluid of claim 88 wherein said fluid consists essentially of additives other than a solid bridging agent.

110. The water-based drilling fluid of claim 89 wherein said fluid consists essentially of additives other than a solid bridging agent.

111. The water-based drilling fluid of claim 90 wherein said fluid consists essentially of additives other than a solid bridging agent.

112. The water-based drilling fluid of claim 91 wherein said fluid consists essentially of additives other than a solid bridging agent.

113. The water-based drilling fluid of claim 92 wherein said fluid consists essentially of additives other than a solid bridging agent.

114. The water-based drilling fluid of claim 107 wherein said effective fluid loss control properties is a fluid loss of about 5 ml./30 min. or less using the standard dynamic filtration fluid loss test.

115. The water-based drilling fluid of claim 108 wherein said effective fluid loss control properties is a fluid loss of about 5 ml./30 min. or less using the standard dynamic filtration fluid loss test.

116. The water-based drilling fluid of claim 109 wherein said effective fluid loss control properties is a fluid loss of about 5 ml./30 min. or less using the standard dynamic filtration fluid loss test.

117. The water-based drilling fluid of claim 110 wherein said effective fluid loss control properties is a fluid loss of about 5 ml./30 min. or less using the standard dynamic filtration fluid loss test.

118. The water-based drilling fluid of claim 111 wherein said effective fluid loss control properties is a fluid loss of about 5 ml./30 min. or less using the standard dynamic filtration fluid loss test.

119. The water-based drilling fluid of claim 112 wherein said effective fluid loss control properties is a fluid loss of about 5 ml./30 min. or less using the standard dynamic filtration fluid loss test.

120. The water-based drilling fluid of claim 113 wherein said effective fluid loss control properties is a fluid loss of about 5 ml./30 min. or less using the standard dynamic filtration fluid loss test.

121. The water-based drilling fluid of claim 82 wherein said water soluble polymer is selected from the group consisting of water soluble starches and modified versions thereof, water-soluble polysaccharides and modified versions thereof, and water-soluble celluloses and modified versions thereof, and water soluble polyacrylamides and copolymers thereof, and combinations thereof.

122. The water-based drilling fluid of claim 82 wherein said quantity is at least about 2 lb./bbl.

123. The water-based drilling fluid of claim 82 wherein said quantity is about 7.5 lb.bbl.

124. The water-based drilling fluid of claim 113 wherein said water soluble polymer is selected from the group consisting of water soluble starches and modified versions thereof, water-soluble polysaccharides and modified versions thereof, and water-soluble celluloses and modified versions thereof, and water soluble polyacrylamides and copolymers thereof, and combinations thereof.

125. The water-based drilling fluid of claim 120 wherein said water soluble polymer is selected from the group consisting of water soluble starches and modified versions thereof, water-soluble polysaccharides and modified versions thereof, and water-soluble celluloses and modified versions thereof, and water soluble polyacrylamides and copolymers thereof, and combinations thereof.

126. A water-based drilling fluid having effective rheology comprising low shear rate viscosity and effective fluid loss control properties comprising:

about 7.5 lb./bbl. water soluble polymer; and,

about 2 lb./bbl. of a surfactant adapted to associate with said water soluble polymer and to provide said effective rheology and fluid loss control properties.

127. The water-based drilling fluid of claim 126 further comprising a concentration of a water emulsifiable material as an internal phase.

128. The water-based drilling fluid of claim 126 wherein said surfactant is selected from the group consisting of alkyl sulfates, alkyl ether sulfates, alkyl sulfonates, ethoxylated esters, ethoxylated glycoside esters, alcohol ethers, and phosphated esters comprising about 8 to about 18 carbon atoms, preferably about 8 to about 12 carbon atoms, alkali metal salts thereof, and combinations thereof.

129. The water-based drilling fluid of claim 126 wherein said surfactant is selected from the group consisting of alkyl sulfates and alkyl ether sulfates.

130. The water-based drilling fluid of claim 126 wherein said surfactant comprises an alkyl ether sulfate.

131. The water-based drilling fluid of claim 126 wherein said surfactant is sodium tridecyl ether sulfate.

132. The water-based drilling fluid of claim 127 wherein said surfactant is selected from the group consisting of alkyl sulfates, alkyl ether sulfates, alkyl sulfonates, ethoxylated esters, ethoxylated glycoside esters, alcohol ethers, and phosphated esters comprising about 8 to about 18 carbon atoms, preferably about 8 to about 12 carbon atoms, alkali metal salts thereof, and combinations thereof.

133. The water-based drilling fluid of claim 127 wherein said surfactant is selected from the group consisting of alkyl sulfates and alkyl ether sulfates

134. The water-based drilling fluid of claim 127 wherein said surfactant comprises an alkyl ether sulfate.

135. The water-based drilling fluid of claim 127 wherein said surfactant is sodium tridecyl ether sulfate.

136. The water-based drilling fluid of claim 126 wherein said water soluble polymer is selected from the group consisting of water soluble starches and modified versions thereof, water-soluble polysaccharides and modified versions thereof, and water-soluble celluloses and modified versions thereof, and water soluble polyacrylamides and copolymers thereof, and combinations thereof.

137. The water-based drilling fluid of claim 127 wherein said water soluble polymer is selected from the group consisting of water soluble starches and modified versions thereof, water-soluble polysaccharides and modified versions thereof, and water-soluble celluloses and modified versions thereof, and water soluble polyacrylamides and copolymers thereof, and combinations thereof.

138. The water-based drilling fluid of claim 134 wherein said water soluble polymer is selected from the group consisting of water soluble starches and modified

versions thereof, water-soluble polysaccharides and modified versions thereof, and water-soluble celluloses and modified versions thereof, and water soluble polyacrylamides and copolymers thereof, and combinations thereof.

139. The water-based drilling fluid of claim 135 wherein said water soluble polymer is selected from the group consisting of water soluble starches and modified versions thereof, water-soluble polysaccharides and modified versions thereof, and water-soluble celluloses and modified versions thereof, and water soluble polyacrylamides and copolymers thereof, and combinations thereof.

140. The water-based drilling fluid of claim 126 wherein said low shear rate viscosity is about 70,000 cP or more upon exposure to 0.3 rpm.

141. The water-based drilling fluid of claim 126 wherein said low shear rate viscosity is about 100,000 cP or more upon exposure to 0.3 rpm.

142. The water-based drilling fluid of claim 126 wherein said low shear rate viscosity is about 200,000 cP or more upon exposure to 0.3 rpm.

143. The water-based drilling fluid of claim 127 wherein said low shear rate viscosity is about 70,000 cP or more upon exposure to 0.3 rpm.

144. The water-based drilling fluid of claim 127 wherein said low shear rate viscosity is about 100,000 cP or more upon exposure to 0.3 rpm.

145. The water-based drilling fluid of claim 140 wherein said fluid consists essentially of additives other than a solid bridging agent.

146. The water-based drilling fluid of claim 141 wherein said fluid consists essentially of additives other than a solid bridging agent.

147. The water-based drilling fluid of claim 142 wherein said fluid consists essentially of additives other than a solid bridging agent.

148. The water-based drilling fluid of claim 143 wherein said fluid consists essentially of additives other than a solid bridging agent.

149. The water-based drilling fluid of claim 144 wherein said fluid consists essentially of additives other than a solid bridging agent.

150. The water-based drilling fluid of claim 145 wherein said effective fluid loss control properties is a fluid loss of about 5 ml./30 min. or less using the standard dynamic filtration fluid loss test.

151. The water-based drilling fluid of claim 146 wherein said effective fluid loss control properties is a fluid loss of about 5 ml./30 min. or less using the standard dynamic filtration fluid loss test.

152. The water-based drilling fluid of claim 147 wherein said effective fluid loss control properties is a fluid loss of about 5 ml./30 min. or less using the standard dynamic filtration fluid loss test.

153. The water-based drilling fluid of claim 148 wherein said effective fluid loss control properties is a fluid loss of about 5 ml./30 min. or less using the standard dynamic filtration fluid loss test.

154. The water-based drilling fluid of claim 149 wherein said effective fluid loss control properties is a fluid loss of about 5 ml./30 min. or less using the standard dynamic filtration fluid loss test.

155. The water-based drilling fluid of claim 154 wherein said non-toxic water emulsifiable material is a water insoluble material selected from the group consisting of olefins, paraffins, water insoluble glycols, and combinations thereof.

156. A water-based drilling fluid having effective rheology comprising low shear rate viscosity and effective fluid loss control properties, and consisting essentially of additives other than solid bridging agents, said drilling fluid comprising:

about 7.5 lb./bbl. water soluble polymer;

about 2 lb./bbl. of a surfactant adapted to associate with said water soluble polymer and to provide said effective rheology and fluid loss control properties; and

a concentration of a non-toxic water emulsifiable material as an internal phase.

157. The water-based drilling fluid of claim 156 wherein said surfactant is sodium tridecyl ether sulfate.

158. The water-based drilling fluid of claim 156 wherein said water soluble polymer is selected from the group consisting of water soluble starches and modified versions thereof, water-soluble polysaccharides and modified versions thereof, and water-soluble celluloses and modified versions thereof, and water soluble polyacrylamides and copolymers thereof, and combinations thereof.

159. The water-based drilling fluid of claim 157 wherein said water soluble polymer is selected from the group consisting of water soluble starches and modified versions thereof, water-soluble polysaccharides and modified versions thereof, and water-soluble celluloses and modified versions thereof, and water soluble polyacrylamides and copolymers thereof, and combinations thereof.

160. The water-based drilling fluid of claim 156 wherein said water soluble polymer is a combination comprising from about 40 to about 60 wt.% of a xanthan polysaccharide and about from about 40 to about 60 wt.% synthetically modified

starch comprising one or more functional groups selected from the group consisting of carboxymethyl, propylene glycol, and epichlorohydrin functional groups.

161. The water-based drilling fluid of claim 156 wherein said water soluble polymer is a combination comprising about 50 wt.% xanthan polysaccharide and about 50 wt.% synthetically modified starch comprising one or more functional groups selected from the group consisting of carboxymethyl, propylene glycol, and epichlorohydrin functional groups.

162. A water-based drilling fluid having effective rheology comprising low shear rate viscosity and effective fluid loss control properties, and consisting essentially of additives other than solid bridging agents, said drilling fluid comprising:

about 7.5 lb./bbl. of water soluble polymer comprising a combination of about 50 wt.% xanthan polysaccharide and about 50 wt.% synthetically modified starch comprising one or more functional groups selected from the group consisting of a carboxymethyl group, a propylene glycol group, and an epichlorohydrin functional group;

about 2 lb./bbl. sodium tridecyl ether sulfate.

163. The water based drilling fluid of claim 162 further comprising a concentration of a non-toxic water emulsifiable material as an internal phase.

164. The water-based drilling fluid of claim 156 wherein said non-toxic water emulsifiable material is a water insoluble material selected from the group consisting of olefins, paraffins, water insoluble glycols, water insoluble esters, water insoluble Fischer-Tropsch reaction products, and combinations thereof.

165. The water-based drilling fluid of claim 156 wherein said non-toxic water emulsifiable material is a water insoluble material selected from the group consisting of olefins, paraffins, water insoluble glycols, and combinations thereof.

166. The water-based drilling fluid of claim 163 wherein said non-toxic water emulsifiable material is a water insoluble material selected from the group consisting of olefins, paraffins, water insoluble glycols, and combinations thereof.

167. The water-based drilling fluid of claim 1 further comprising an alkali metal salt of a compound selected from the group consisting of a thiosulfate and a thiosulfonate.

168. The water-based drilling fluid of claim 40 further comprising an alkali metal salt of a compound selected from the group consisting of a thiosulfate and a thiosulfonate.

169. The water-based drilling fluid of claim 82 further comprising an alkali metal salt of a compound selected from the group consisting of a thiosulfate and a thiosulfonate.

170. The water-based drilling fluid of claim 125 further comprising an alkali metal salt of a compound selected from the group consisting of a thiosulfate and a thiosulfonate.

171. The water-based drilling fluid of claim 156 further comprising an alkali metal salt of a compound selected from the group consisting of a thiosulfate and a thiosulfonate.

172. The water-based drilling fluid of claim 162 further comprising an alkali metal salt of a compound selected from the group consisting of a thiosulfate and a thiosulfonate.

173. The water-based drilling fluid of claim 126 further comprising an alkali metal salt of a compound selected from the group consisting of a thiosulfate and a thiosulfonate.

174. The water-based drilling fluid of claim 1 wherein said water soluble polymer is a combination comprising from about 40 to about 60 wt.% of a xanthan polysaccharide and about from about 40 to about 60 wt.% synthetically modified starch comprising one or more functional groups selected from the group consisting of carboxymethyl, propylene glycol, and epichlorohydrin functional groups.

175. The water-based drilling fluid of claim 1 wherein said water soluble polymer is a combination comprising about 50 wt.% xanthan polysaccharide and about 50 wt.% synthetically modified starch comprising one or more functional groups selected from the group consisting of carboxymethyl, propylene glycol, and epichlorohydrin functional groups.

176. The water-based drilling fluid of claim 2 wherein said water soluble polymer is a combination comprising from about 40 to about 60 wt.% of a xanthan polysaccharide and about from about 40 to about 60 wt.% synthetically modified starch comprising one or more functional groups selected from the group consisting of carboxymethyl, propylene glycol, and epichlorohydrin functional groups.

177. The water-based drilling fluid of claim 2 wherein said water soluble polymer is a combination comprising about 50 wt.% xanthan polysaccharide and about 50 wt.% synthetically modified starch comprising one or more functional groups selected from the group consisting of carboxymethyl, propylene glycol, and epichlorohydrin functional groups.

178. The water-based drilling fluid of claim 6 wherein said water soluble polymer is a combination comprising from about 40 to about 60 wt.% of a xanthan polysaccharide and about from about 40 to about 60 wt.% synthetically modified starch comprising one or more functional groups selected from the group consisting of carboxymethyl, propylene glycol, and epichlorohydrin functional groups.

179. The water-based drilling fluid of claim 6 wherein said water soluble polymer is a combination comprising about 50 wt.% xanthan polysaccharide and about 50 wt.% synthetically modified starch comprising one or more functional groups selected from the group consisting of carboxymethyl, propylene glycol, and epichlorohydrin functional groups.

180. The water-based drilling fluid of claim 10 wherein said water soluble polymer is a combination comprising from about 40 to about 60 wt.% of a xanthan polysaccharide and about from about 40 to about 60 wt.% synthetically modified starch comprising one or more functional groups selected from the group consisting of carboxymethyl, propylene glycol, and epichlorohydrin functional groups.

181. The water-based drilling fluid of claim 10 wherein said water soluble polymer is a combination comprising about 50 wt.% xanthan polysaccharide and about 50 wt.% synthetically modified starch comprising one or more functional groups selected from the group consisting of carboxymethyl, propylene glycol, and epichlorohydrin functional groups.

182. The water-based drilling fluid of claim 40 wherein said water soluble polymer is a combination comprising from about 40 to about 60 wt.% of a xanthan polysaccharide and about from about 40 to about 60 wt.% synthetically modified

starch comprising one or more functional groups selected from the group consisting of carboxymethyl, propylene glycol, and epichlorohydrin functional groups.

183. The water-based drilling fluid of claim 40 wherein said water soluble polymer is a combination comprising about 50 wt.% xanthan polysaccharide and about 50 wt.% synthetically modified starch comprising one or more functional groups selected from the group consisting of carboxymethyl, propylene glycol, and epichlorohydrin functional groups.

184. The water-based drilling fluid of claim 82 wherein said water soluble polymer is a combination comprising from about 40 to about 60 wt.% of a xanthan polysaccharide and about from about 40 to about 60 wt.% synthetically modified starch comprising one or more functional groups selected from the group consisting of carboxymethyl, propylene glycol, and epichlorohydrin functional groups.

185. The water-based drilling fluid of claim 82 wherein said water soluble polymer is a combination comprising about 50 wt.% xanthan polysaccharide and about 50 wt.% synthetically modified starch comprising one or more functional groups selected from the group consisting of carboxymethyl, propylene glycol, and epichlorohydrin functional groups.

186. The water-based drilling fluid of claim 126 wherein said water soluble polymer is a combination comprising from about 40 to about 60 wt.% of a xanthan polysaccharide and about from about 40 to about 60 wt.% synthetically modified starch comprising one or more functional groups selected from the group consisting of carboxymethyl, propylene glycol, and epichlorohydrin functional groups.

187. The water-based drilling fluid of claim 126 wherein said water soluble polymer is a combination comprising about 50 wt.% xanthan polysaccharide and

about 50 wt.% synthetically modified starch comprising one or more functional groups selected from the group consisting of carboxymethyl, propylene glycol, and epichlorohydrin functional groups.

188. The water-based drilling fluid of claim 156 wherein said water soluble polymer is a combination comprising from about 40 to about 60 wt.% of a xanthan polysaccharide and about from about 40 to about 60 wt.% synthetically modified starch comprising one or more functional groups selected from the group consisting of carboxymethyl, propylene glycol, and epichlorohydrin functional groups.

189. The water-based drilling fluid of claim 156 wherein said water soluble polymer is a combination comprising about 50 wt.% xanthan polysaccharide and about 50 wt.% synthetically modified starch comprising one or more functional groups selected from the group consisting of carboxymethyl, propylene glycol, and epichlorohydrin functional groups.

190. The water-based drilling fluid of claim 162 wherein said water soluble polymer is a combination comprising from about 40 to about 60 wt.% of a xanthan polysaccharide and about from about 40 to about 60 wt.% synthetically modified starch comprising one or more functional groups selected from the group consisting of carboxymethyl, propylene glycol, and epichlorohydrin functional groups.

191. The water-based drilling fluid of claim 162 wherein said water soluble polymer is a combination comprising about 50 wt.% xanthan polysaccharide and about 50 wt.% synthetically modified starch comprising one or more functional groups selected from the group consisting of carboxymethyl, propylene glycol, and epichlorohydrin functional groups.

192. The water-based drilling fluid of claim 163 wherein said water soluble polymer is a combination comprising about 50 wt.% xanthan polysaccharide and about 50 wt.% synthetically modified starch comprising one or more functional groups selected from the group consisting of carboxymethyl, propylene glycol, and epichlorohydrin functional groups.

193. The water-based drilling fluid of claim 164 wherein said water soluble polymer is a combination comprising about 50 wt.% xanthan polysaccharide and about 50 wt.% synthetically modified starch comprising one or more functional groups selected from the group consisting of carboxymethyl, propylene glycol, and epichlorohydrin functional groups.

194. The water-based drilling fluid of claim 165 wherein said water soluble polymer is a combination comprising about 50 wt.% xanthan polysaccharide and about 50 wt.% synthetically modified starch comprising one or more functional groups selected from the group consisting of carboxymethyl, propylene glycol, and epichlorohydrin functional groups.

195. The water-based drilling fluid of claim 166 wherein said water soluble polymer is a combination comprising about 50 wt.% xanthan polysaccharide and about 50 wt.% synthetically modified starch comprising one or more functional groups selected from the group consisting of carboxymethyl, propylene glycol, and epichlorohydrin functional groups.